

PATENT COOPERATION TREATY

AG

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

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RECEIVED  
03 JUN 2009  
FILE No. 44654  
G.E. EHRLICH (1995) LTD.

INVITATION TO PAY ADDITIONAL FEES  
AND, WHERE APPLICABLE, PROTEST FEE  
(PCT Article 17(3)(a) and Rule 40.1 and 40.2(e))

|  |   |
|--|---|
| Applicant's or agent's file reference<br>44654     | Date of mailing<br>(day/month/year) 20/05/2009 (d)          |
| International application No.<br>PCT/IL2008/001678 | PAYMENT DUE within ONE MONTH from the above date of mailing |
| Applicant<br>SENG ENTERPRISES LTD.                 | International filing date<br>(day/month/year) 25/12/2008    |

1. This International Searching Authority

- (i) considers that there are 7 (number of) inventions claimed in the international application covered by the claims indicated on an extra sheet:
- (ii) therefore considers that **the international application does not comply with the requirements of unity of invention** (Rules 13.1, 13.2 and 13.3) for the reasons indicated on an extra sheet:
- (iii)  has carried out a partial international search (see Annex)  will establish the international search report on those parts of the international application which relate to the invention first mentioned in claims Nos.:  
see extra sheet
- (iv) will establish the international search report on the other parts of the international application only if, and to the extent to which, additional fees are paid.

2. Consequently, the applicant is hereby **invited to pay**, within the time limit indicated above, the amount indicated below:



EUR 1.700,00 x 6 = EUR 10.200  
Fee per additional invention      number of additional inventions      currency/total amount of additional fees

3. The applicant is informed that, according to Rule 40.2(c), **the payment of any additional fee may be made under protest**, i.e., a reasoned statement to the effect that the international application complies with the requirement of unity of invention or that the amount of the required additional fee is excessive, where applicable, subject to the payment of a protest fee.

Where the applicant pays additional fees under protest, the applicant is hereby invited, within the time limit indicated above, to pay a protest fee (Rule 40.2(e)) in the amount of EUR 750,00 (currency/amount)

Where the applicant has not, within the time limit indicated above, paid the required protest fee, the protest will be considered not to have been made and the International Searching Authority will so declare.

4.  Claim(s) Nos. \_\_\_\_\_ have been found to be unsearchable under Article 17(2)(b) because of defects under Article 17(2)(a) and therefore have not been included with any invention.

|  |  |
|--|--|
| Name and mailing address of the International Searching Authority<br> European Patent Office, P.B. 5818 Patentlaan 2<br>NL-2280 HV Rijswijk<br>Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,<br>Fax: (+31-70) 340-3016 | Authorized officer<br>Mary Sloan<br> |
|--|--|

REGISTERED

1. The present communication is an Annex to the invitation to pay additional fees (Form PCT/ISA/206). It shows the results of the international search established on the parts of the international application which relate to the invention first mentioned in claims Nos.:
- see 'Invitation to pay additional fees'
2. This communication is not the international search report which will be established according to Article 18 and Rule 43.
3. If the applicant does not pay any additional search fees, the information appearing in this communication will be considered as the result of the international search and will be included as such in the international search report.
4. If the applicant pays additional fees, the international search report will contain both the information appearing in this communication and the results of the international search on other parts of the international application for which such fees will have been paid.

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category * | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No.         |
|------------|---|-------------------------------|
| X          | WO 03/056345 A (SENS INC I [KR]; CUI GANG [CN]; KIM JU-YONG [KR]; KIM MOON-HWAN [KR];) 10 July 2003 (2003-07-10)  | 1,2,5-7,<br>9,14,19,<br>34    |
| Y          | page 5, lines 10-22<br>page 8, lines 6-22<br>page 14, lines 23-27; figure 1   | 10                            |
| X          | WO 2006/080000 A (SENG ENTPR LTD [IL]; DEUTSCH MORDECHAI [IL])<br>3 August 2006 (2006-08-03)<br>cited in the application  | 1-3,5,<br>7-9,14,<br>16-20    |
| Y          | page 4, lines 9,10<br>page 19, lines 24-28<br>page 20, line 25<br>page 24, lines 29-32<br>page 29, lines 7,8<br>page 30, line 31 - page 31, line 12<br>page 32, lines 16,17<br>page 37, line 31 - page 38, line 3;<br>figures 4A-4C,8-11,14 | 10                            |
| X          | US 2002/187074 A1 (O'CONNOR STEPHEN D [US] ET AL) 12 December 2002 (2002-12-12)   | 1,2,5,6,<br>9,14,16,<br>19,34 |
| Y          | paragraphs [0051], [0055], [0064];<br>figures 1A-B,2A   | 10                            |
| Y          | EP 0 059 297 A (GREINER & SOEHNE C A GMBH [AT]) 8 September 1982 (1982-09-08)<br>page 6, line 33 - page 7, line 5; figure 3   | 10                            |
|            | -/--  |                               |

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

\* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \* & \* document member of the same patent family

**Annex to Form PCT/ISA/206  
COMMUNICATION RELATING TO THE RESULTS  
OF THE PARTIAL INTERNATIONAL SEARCH**

International Application No  
**PCT/IL2008/001678**

| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT |  |                            |
|--|--|----------------------------|
| Category °   | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No.      |
| X  | US 2004/241783 A1 (PAPKOVSKY DMITRI [IE]<br>ET AL) 2 December 2004 (2004-12-02)<br>paragraphs [0014] - [0016]; figures<br>1,2(a)-(b)   | 1-3,5,<br>14,18-20         |
| X  | US 6 103 479 A (TAYLOR D LANSING [US])<br>15 August 2000 (2000-08-15)<br>column 6, lines 6-11; figures 8-10<br>column 15, lines 18-28  | 1-3,5,9,<br>14,18-20       |
| X  | WO 02/097398 A (EXIQON AS [DK]; JAKOBSEN<br>MOGENS HASTEEN [DK]; KONGSBK LARS [DK])<br>5 December 2002 (2002-12-05)<br>page 14, lines 14-20<br>page 27, lines 4-7<br>page 37, line 11 - page 38, line 5;<br>figures 5-12 | 1,2,5,6,<br>9,14,17,<br>19 |

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-3, 5-10, 14, 16-20, 34

The device of claim 1 furthermore comprising a cell holding area in fluid contact with the capillary flow channel

2. claims: 1, 11-13, 15, 28, 29

The device of claim 1 wherein the components are linked together by adhesive

3. claims: 21-27

Kit comprising a capillary flow conduit, a cell holding area and an indication for one or both of a capillary flow rate and a cell dislocation rate

4. claims: 30-33

A method for assembling a modular device suitable for cell studies.

5. claims: 4, 35-38

A device suitable for cell studies whereby at least one array of cell holders is partially covered (masked) and connected with a capillary channel.

6. claims: 39-43

Method for forming a device suitable for cell studies adhering a plurality of layers.

7. claims: 44-59

Method and criteria for the selection and use of a cell study device according to a desired fluid flow rate and/or a cell dislocation rate.

1. Lack of unity of invention (Rule 13.1 PCT)

1.1 Reference is made to the following document; the numbering will be adhered to in the rest of the procedure (references in parentheses applying to this document):

D1: WO 03/056345

D1 in fig. 1 discloses:

a device suitable for cell studies (cf. page 5, lines 10-22 "erythrocytes, white cells"), comprising:  
a base layer (400);  
a planar conduit defining layer (200), including a conduit cut out of the layer (101, 102, 103);  
and a planar cover layer (300) which defines a capillary flow channel (100) (cf. page 8, lines 17-22) in said conduit layer (200), said conduit layer and said cover layer acting as side walls for said capillary flow channel (cf. page 8, lines 6-16 "sample introducing part 100"),  
wherein said layers are formed of substantially inert materials (cf. page 14, lines 23-27) (see also Item VIII 4.1).  
The subject matter of claim 1 can thus not be considered novel over D1 in the sense of Art. 33(2) PCT.

1.2 Being the subject matter of claim 1 not novel and therefore not inventive, it cannot represent a common inventive concept. This Authority considers that the application lacks unity within the meaning of Rule 13.1 PCT and that there are 7 groups of inventions covered by the claims indicated as follows:

Groups of inventions:

A) Claims 1-3, 5-10 (inasmuch as they don't refer back to claim 4), 14 (inasmuch as it doesn't refer back to claims 4, 11-13), 16-20 (inasmuch as they don't refer back to claim 4, 11-13, 15), 34: The device of claim 1 furthermore comprising a cell holding area in fluid contact with the capillary flow channel.

B) Claims 1, 11-13 (inasmuch as they don't refer back to claims 2-10), 15 (inasmuch as it refers back to claims 1, 11-13), 28, 29: The devices of claims 1 and 28 wherein the components are linked together by adhesive

C) Claims 21-27: Kit comprising a capillary flow conduit, a cell holding area and an indication for one or both of a capillary flow rate and a cell dislocation rate

D) Claims 30-33: A method for assembling a modular device suitable for cell studies.

E) Claims 4, 35-38: A device suitable for cell studies whereby at least one array of cell holders is partially covered (masked) and connected with a capillary channel.

F) Claims 39-43: Method for forming a device suitable for cell studies adhering a plurality of layers.

G) Claims 44-59: Method and criteria for the selection and use of a cell study device according to a desired fluid flow rate and/or a cell dislocation rate.

1.3 The requirements of Rule 13.1 PCT are not fulfilled for the following reasons:

Group A) (claims 1-3, 5-10, 14, 16-20, 34): The problem addressed is regarded to be the providing a capillary device suitable for cell studies having an area suitable for holding cells. The special technical feature is regarded to be the cell holding area.

Group B) (claims 1, 11-13, 15, 28, 29): The problem addressed is to prevent contamination and/or reusability providing a possibility for opening the cover layer of the device of group A and subsequently sealing the device (cf. description, page 31, lines 3-6). The special technical feature required is a removable non-adhesive interfering layer between the cover and the middle layer.

Group C) (claims 21-27): The problem addressed is to select a kit comprising a device suitable for cell studies including a capillary flow conduit and a cell holding area according to its technical specifications. The special technical feature is an indication about one or both of a capillary flow rate or a cell dislocation rate to be included in the kit and the corresponding method of selection, as stated on page 30, lines 38-39 of the description.

Group D) (claims 30-33): The problem addressed is to define a method of assembling a device suitable for cell studies according to desired device characteristics. The special technical feature therefore is the selection of modular parts and assembling them, as stated in the description (cf. page 30, lines 23-25).

Group E) (claims 4, 35-38): The problem addressed is to mask out a larger cell holding area to define the part of the array to be active (cf. description, page 30, lines 34-35). The special technical feature is a the masking layer.

Group F) (claims 39-43): The problem addressed is regarded to be the construction of a cell study device. The special technical features are the plurality of layers and the methods for assembling them.

Group G): (claims 44-59): The problem addressed is how to select and use a device suitable for cell studies. The special technical features are determining one or both of desired flow rates and cell dislocation rate and selecting the technical features of a device accordingly.

Remark concerning groups A and B: the common part of the two groups is represented by the device of claim 1, which is not novel (see 1.1), hence not inventive. Thus the subject matter of group A and group B cannot share a common inventive concept.

Conclusion: the subject matter of the different groups of potential inventions are addressing different problems with different special technical features. Hence the requirements of Rule 13.2 PCT are not fulfilled. Consequently, the different groups of potential inventions are not so linked, as to form a single general inventive concept (Rule 13.1 PCT).

**Patent Family Annex**

Information on patent family members

International Application No

PCT/IL2008/001678

| Patent document cited in search report |    | Publication date | Patent family member(s) | Publication date |
|--|----|------------------|-------------------------|------------------|
| WO 03056345                            | A  | 10-07-2003       | AU 2002251574 A1        | 15-07-2003       |
|  |    |                  | CN 1514937 A            | 21-07-2004       |
|  |    |                  | EP 1342093 A1           | 10-09-2003       |
|  |    |                  | JP 3948627 B2           | 25-07-2007       |
|  |    |                  | JP 2005513508 T         | 12-05-2005       |
|  |    |                  | KR 20030054204 A        | 02-07-2003       |
|  |    |                  | US 2004045821 A1        | 11-03-2004       |
| WO 2006080000                          | A  | 03-08-2006       | EP 1866075 A1           | 19-12-2007       |
|  |    |                  | US 2009105095 A1        | 23-04-2009       |
| US 2002187074                          | A1 | 12-12-2002       | NONE                    |                  |
| EP 0059297                             | A  | 08-09-1982       | AT 368389 B             | 11-10-1982       |
|  |    |                  | BR 8200253 A            | 23-11-1982       |
|  |    |                  | JP 57154057 A           | 22-09-1982       |
| US 2004241783                          | A1 | 02-12-2004       | NONE                    |                  |
| US 6103479                             | A  | 15-08-2000       | NONE                    |                  |
| WO 02097398                            | A  | 05-12-2002       | EP 1337826 A2           | 27-08-2003       |
|  |    |                  | WO 02061387 A2          | 08-08-2002       |

## Important Information

### General:

- The **claims cannot be changed** at this point in the procedure, the transmitted report is **not** the international search report (see Art. 19 PCT).
- Any payment has to be made **directly** to this ISA, payments to other entities will not be accepted.
- In case of a **total of more than 2 inventions** found: when paying please **specify exactly** which claims should be searched (unless you pay for all inventions found)
- An **extension of the set time limit** cannot be granted.

### Payment by cheque (not accepted as of 01/04/2008):

- The **date to be considered as the date on which the payment is made** is the **date of receipt of the cheque at the EPO**, provided that the cheque is **met**.
- Copies of cheques sent by fax or by mail are not considered to be a valid payment.
- The fees shall be paid in euro, no equivalents in other currencies.
- No payments by cheque shall be accepted as of 01/04/2008 (date of receipt at the EPO).

### Payment or transfer to a bank account:

- The **date to be considered as the date on which the payment is made** is the date on which the amount of the payment or the transfer is **actually entered** in a bank account or Giro account held by the EPO.
- The fees shall be paid in euros, no equivalents in other currencies, all charges to be carried by the applicant
- For a list of accounts held by the EPO please see [http://www.european-patent-office.org/epo/new/bank\\_euro.pdf](http://www.european-patent-office.org/epo/new/bank_euro.pdf)

### Payment by deposit account with the EPO:

- The **date to be considered as the date on which the payment is made** is the date that the **authorisation** to deduct fees from the deposit account is **received at the EPO**.

***Note:** If you don't have a deposit account with the EPO yourself you might want to consider using the account of an associate as a safe and quick way of paying.*

**Payments by credit card are not possible.**

### Payments under protest (one-step procedure under Rule 40 PCT as of 13/12/2007):

- For general information on the protest procedure at ISA/EP, please refer to the Special Edition No. 3 of the OJ of the EPO 2007, pages 140-145, [http://www.european-patent-office.org/epo/pubs/oj007/08\\_07/special\\_edition\\_3\\_epc\\_2000\\_decisions.pdf](http://www.european-patent-office.org/epo/pubs/oj007/08_07/special_edition_3_epc_2000_decisions.pdf)
- Any protest will **only be accepted if**, within the time limit set in the invitation, the additional fees for each invention to be searched **and** the protest fee are paid.
- The protest has to be **accompanied by a technical reasoning**.



**European Patent Organisation**

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